PictureTel Corporation

# Software Release Notes

## 240/260 Gateway 1.0.000

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# Table Of Contents

**1. INTRODUCTION ..... 5**

**2. SOFTWARE ..... 6**

2.1. SOFTWARE REINSTALLATION ..... 6
*2.1.1. Reinstalling the 240/260 Gateway System Software ..... 6*
*2.1.2. Reinstalling Windows NT ..... 6*

**3. STARTING THE GATEWAY SERVICE ..... 7**

**4. CURRENT RESTRICTIONS, RECOMMENDATIONS, AND KNOWN PROBLEMS ..... 8**

4.1. RESTRICTIONS ..... 8
*4.1.1. Memory Hole ..... 8*
*4.1.2. Inbound Call Capacity ..... 8*
*4.1.3. Model 260 ..... 8*
*4.1.4. One-Channel Video Calls ..... 8*
*4.1.5. SNMP Agent Services ..... 8*
*4.1.6. DHCP ..... 8*
*4.1.7. Microsoft Internet Explorer ..... 8*
*4.1.8. Microsoft NetMeeting ..... 8*
*4.1.9. Multiple Gateways ..... 9*
*4.1.10. Gateway-to-Gateway Calls ..... 9*
*4.1.11. PictureTel LiveLAN ..... 9*
*4.1.12. T.120 Dataconferencing ..... 9*
*4.1.13. PictureTel LiveManager ..... 9*
*4.1.14. PictureTel 210 H.323 Terminal Adapter ..... 10*
*4.1.15. PictureTel SwiftSite ..... 10*
*4.1.16. PictureTel Venue·2000 ..... 10*
*4.1.17. PictureTel 550 ..... 10*
*4.1.18. CCM Renegotiation ..... 10*
*4.1.19. Un-installing the Gateway Application ..... 10*
*4.1.20. Montage Conferences ..... 10*
4.2. RECOMMENDATIONS ..... 10
*4.2.1. Remote RAS Connections ..... 11*
*4.2.2. CSU ..... 11*
*4.2.3. IMUX ..... 11*
4.3. KNOWN PROBLEMS ..... 11
*4.3.1. NetStatus ..... 11*

**5. DEBUGGING AIDS & UTILITIES ..... 11**

5.1. DEBUGGING AIDS ..... 11
5.2. HARDWARE DIAGNOSTICS ..... 11
5.3. NETSTATUS ..... 12
5.4. GATEWAY SNMP MANAGER ..... 12
5.5. GATEWAY SOUND RECORDER ..... 12

**6. COMPATIBILITY & INTEROPERABILITY ..... 13**

6.1. COMPATIBILITY ..... 13
*6.1.1. Tested Systems ..... 13*
*6.1.2. Compatibility Issues ..... 13*
*6.1.3. Gatekeepers ..... 13*
6.2. INTEROPERABILITY ..... 13
*6.2.1. Tested Systems ..... 13*

*6.2.2. Interoperability Issues* ..... *14*
*6.2.3. Gatekeepers* ..... *14*

**7. CUSTOMER SUPPORT** ..... **14**

# 1. Introduction

The PictureTel 240/260 Gateway is a member of the PictureTel family of enterprise-wide collaborative computing products. PictureTel 240 1.0, together with LiveManager 3.1, allows interoperability between LiveLAN 3.0/3.1 or other H.323 compliant videoconferencing systems and any H.320 compliant videoconferencing system. Multipoint H.323 videoconferencing is supported via the PictureTel System 330 NetConference product.

Release 1.0 supports the 240 Gateway only. Major features of this release of the PictureTel 240 Gateway include:

- Inbound TCS4/IIS calls are supported (single-stage dialing).
- Inbound calls which involve the Interactive Voice Response Unit (automated attendant) are supported
- Outbound 2B/6B video calls are supported to H.320 capable terminals
- Wideband audio (G.722) is supported through the Gateway when both endpoints support it
- T.120 data collaboration is supported with T.120 capable endpoints
- Remote configuration via SNMP from LiveManager 3.1
- Y2K compliant

These release notes are divided into the following sections:

- Software
- Starting the Gateway Service
- Current Restrictions, Recommendations, and Known Problems
- Debugging Aids & Utilities
- Compatibility & Interoperability
- Customer Support

# 2. Software

**The PictureTel 240/260 Gateway comes with all the necessary software pre-installed.** Reinstallation of the software should be performed only in the event of a critical system problem.

**Important:** Always back up the configuration settings for reference. To do this, run the configuration utility and press ALT + PRINT SCREEN to capture the image of the active window. Next, open WordPad, paste the image in the document window, and print or save the image. Be sure to capture each of these pages: Network Card-System, Network Card-Trunk 1, ODSP, and General. If you ever need to restore the system parameters, such as after a software upgrade, the information will be readily available.

## 2.1. Software Reinstallation

The 240/260 Gateway comes with two software CDs: the 240/260 Gateway System Software CD and the Windows NT Server Software CD. These CDs are to be used for restoration of the software on the single 240/260 Gateway with which they were shipped and should remain with the unit.

### 2.1.1. Reinstalling the 240/260 Gateway System Software

See the *240/260 Gateway Administrator's Guide* for installation instructions.

### 2.1.2. Reinstalling Windows NT

If the system is unable to boot and an authorized PictureTel representative has ruled out a hardware problem, it is necessary to reinstall the Window NT Server software. See the *240/260 Gateway Administrator's Guide* for instructions. Note that during this installation the drivers for both the LAN card and the video card are reinstalled. Before you reinstall the Windows NT Server software, note the following:

- **The installation of Windows NT is an involved process. Only an authorized PictureTel representative or a Windows NT-trained technician should reinstall Windows NT on your Gateway.**
- Copy the drivers for the **3Com LAN card** to floppy diskette ***before*** you reinstall Windows NT. To do this:
    - Format two blank floppy diskettes and label them 3Com drivers disk #1 and disk #2.
    - Insert the 240/260 System Software CD into a *separate system* (not the Gateway itself) and copy the contents of the 3Com disk 1 and disk 2 folders to the two floppy diskettes.
    - Follow the Windows NT reinstallation procedure outlined in the *240/260 Gateway Administrator's Guide* and insert the 3Com disk #1 at the appropriate step. Remove disk #1 and insert disk #2 when so prompted.
- The 240/260 Gateway System Software CD contains the video card drivers. The 240/260 Gateway currently supports two video cards, the **Matrox Graphics Millennium 11 AGP** and the **Matrox Mystique G200 AGP**. To determine which video card is installed in your system, look at the back of the Gateway PC and see if it the video card has two unused jacks.

The Mystique G200 differs from the Millennium 11 card in that while both cards have an SVGA jack, the Mystique G200 has these two additional jacks. When following the Windows NT reinstallation procedure in the *240/260 Gateway Administrator's Guide*, use **matrox** for the *video_card_type* and specify the appropriate Matrox video card.

# 3. Starting the Gateway Service

The PictureTel Gateway Service is started from the service control manager window. The Gateway Service may be configured for Automatic or Manual startup. If the Gateway is configured for Manual startup, open the Control Panel and double-click Services. Locate and highlight the PictureTel Gateway Service, then click Start. It takes about two full minutes for the Gateway to become on-line at this point. The lights on the PRI network card will flicker and then finally the active trunk LEDs will become green. Please wait until the Gateway registers with the gatekeeper before attempting any calls.

# 4. Current Restrictions, Recommendations, and Known Problems

## 4.1. Restrictions

### 4.1.1. Memory Hole

This software version must be used with the final chassis configurations which support the "memory hole" between 15 and 16 MB. This "memory hole" must be enabled in the machine BIOS before installation of the Gateway software.

### 4.1.2. Inbound Call Capacity

An inbound call is a call directed toward the LAN, that is, an H.320 device calls the Gateway to connect to an H.323 device. The Gateway may not support the call capacity stated in the *240/260 Gateway Administrator's Guide* for inbound 384K calls running T.120 dataconferencing. This problem may be mitigated by configuring the IMUX for serial dialing rather than parallel dialing.

### 4.1.3. Model 260

This software version only supports the PictureTel 240 single ODSP board system. The *240/260 Gateway Administrator's Guide* mentions upgrading from Model 240 to Model 260, which uses three ODSP boards. The upgrade kit will be available in June 1999.

### 4.1.4. One-Channel Video Calls

The Gateway does not support 1x56K or 1x64K video calls.

### 4.1.5. SNMP Agent Services

If you are running any SNMP Agent Services (for example, COMPAQ Insight Agent) in conjunction with the Windows NT SNMP Service, please stop those services before installing the Gateway to facilitate the Gateway SNMP installation.

### 4.1.6. DHCP

The 240/260 Gateway does not support DHCP (Dynamic Host Configuration Protocol).

### 4.1.7. Microsoft Internet Explorer

The 240/260 Gateway is not designed to run with Internet Explorer 4.0. Do not install IE 4.0 on the same machine or errors will occur during install with respect to ActiveMovie.

### 4.1.8. Microsoft NetMeeting

#### 4.1.8.1. Outbound Calls (H.323 device calling H.320 device)

The Gateway treats outbound calls from NetMeeting as 1x384K since NetMeeting does not provide rate information. Also, since NetMeeting does not support the gatekeeper, the Gateway can only accommodate one NetMeeting call at a time.

#### 4.1.8.2. Inbound Calls (H.320 device calling H.323 device)

Since NetMeeting does not support a gatekeeper, H.320 clients are unable to directly dial a NetMeeting endpoint. Instead, they can dial into a LiveLAN client and then be transferred to a NetMeeting.

## 4.1.9. Multiple Gateways

- Any active gateways deployed on your network which do not have active ISDN lines should be disabled. This will ensure that LiveManager chooses an ISDN-capable gateway when LiveLAN tries to call an H.320 system.
- If multiple Gateway connections join the same conference room on a NetConference MCU, the calls will disconnect after 5–7 minutes. The callers must dial back into the conference room when this happens. A LiveManager 3.1 patch to correct this problem will be available soon.

## 4.1.10. Gateway-to-Gateway Calls

The 240 Gateway version 1.0 does not support gateway-to-gateway calls.

## 4.1.11. PictureTel LiveLAN

- Video is not supported on calls transferred from a LiveLAN with a sharper picture video preference to a LiveLAN with a smoother motion video preference.
- When using LiveLAN to run 384K calls through the Gateway, increase the dial time-out to a value greater than 60 seconds to allow sufficient time to establish the call. (The dial time-out is set from the LiveLAN Preferences page.)
- LiveLAN intermittently connects with frozen video. Hanging up and redialing corrects this problem.

## 4.1.12. T.120 Dataconferencing

#### 4.1.12.1. PictureTel 330 NetConference

An H.320 endpoint calling into NetConference through the 240/260 Gateway cannot perform T.120 dataconferencing.

#### 4.1.12.2. Live200 NT

Live200 NT cannot complete T.120 calls through the Gateway.

## 4.1.13. PictureTel LiveManager

- PictureTel recommends that you install the 140 LiveManager gatekeeper on a separate Windows NT server—not on the 240/260 PC itself—and let the 240/260 serve as a dedicated Gateway.
- The 240/260 Gateway will not register with an improperly configured LiveManager. When enabling **Bandwidth Control** for LiveManager, be sure to specify the **network topology**—otherwise you must disable bandwidth control so the Gateway may register.

### 4.1.14.PictureTel 210 H.323 Terminal Adapter

The Gateway does not support connections to the PictureTel 210 H.323 Terminal Adapter.

### 4.1.15.PictureTel SwiftSite

Inbound calls from SwiftSite 1.1 are not supported. Inbound calls from SwiftSite 1.3 may have intermittent problems. Please check the PictureTel website for any updates which may resolve this problem.

### 4.1.16.PictureTel Venue•2000

Inbound calls from Venue•2000 1.3 will fail intermittently. Please check the PictureTel website for any updates which may resolve this problem.

### 4.1.17.PictureTel 550

If using the 240/260 Gateway for calls involving PictureTel 550, be sure to set the **Numbering Type** for the telephone trunks to "**National**." (The Numbering Type is set from Trunk Page of the configuration utility.)

### 4.1.18.CCM Renegotiation

The 240/260 Gateway does not renegotiate the CCM (Conference Communication Modes) for a device once a connection is established.

#### 4.1.18.1.H.323 Connections to H.320 MCUs

Most H.323 clients (including LiveLAN) do not yet support dynamic CCM (Conference Communication Modes). If an H.320 MCU, such as the PictureTel Montage or Prism, renegotiates the CCM for a conference, any LiveLAN connection (through the 240/260 Gateway) to that conference drops to audio-only mode.

#### 4.1.18.2.H.320 Connections to H.323 MCUs

If the 240/260 Gateway connects an incoming H.320 device to an operator and the operator transfers the H.320 device into a NetConference conference room running at a different audio/video rate, the H.320 user will be unable to hear or see the conference.

### 4.1.19.Un-installing the Gateway Application

When you un-install the Gateway application, a message states that un-install was not able to remove some files, as is standard when un-installing Windows applications. Click OK to accept this message. The system will remove additional files at reboot. Note that the system maintains the folder structure such that you do not lose existing log files.

### 4.1.20.Montage Conferences

When connecting multiple 384K calls to the same Montage conference, occasionally "frozen video" will be observed on some of the H.323 clients in the conference. This issue is currently under investigation. Switching the broadcaster in most cases should restore video to the H.323 clients. This anomaly has not been observed in 2B calls.

## 4.2. Recommendations

### 4.2.1. Remote RAS Connections

- When connecting to the Gateway via a remote RAS connection, please use a minimum connection speed of 28Kbps to avoid slow response when running debugging applications such as NetStatus.
- Do not run NetStatus and the SNMP Manager simultaneously from the same RAS connection.

### 4.2.2. CSU

A CSU (Channel Services Unit) is required for connecting the T1-PRI trunks to the public telephone network. This CSU is customer-provided; the local phone company can generally recommend or lease a CSU. Select a CSU that provides remote loopbacks, terminating T1 repeater power, alarming, and a keep alive signal. PictureTel has tested and recommends the Adtran T1 CSU ACE.

### 4.2.3. IMUX

For maximum inbound call support, especially for 384K calls running T.120 dataconferencing, configure the IMUX for serial dialing, not parallel dialing. (An inbound call is one initiated by an H.320 device.)

## 4.3. Known Problems

### 4.3.1. NetStatus

The NetStatus utility incorrectly displays “Restarting” for the D and M channels, regardless of the actual channel state. (**Note:** The M channel applies to E1-PRI trunks only.)

# 5. Debugging Aids & Utilities

## 5.1. Debugging Aids

Each day the PictureTel 240 is in operation, the system generates a log file which has the format TMMDDYY.log. It provides a high level description of the Gateway operation. The log can be used by field service or an end user to determine any failures. This software version will produce a log file each day.

## 5.2. Hardware Diagnostics

This software version of the system software includes hardware diagnostics for the ODSP cards. The file “diagsuite.exe” is copied to the default installation directory during installation. It can be run by selecting the program (PictureTel Gateway 240 Hardware Diagnostics) from the Start menu. There is an online help facility for the diagnostics utilities.

The Gateway service must be stopped before running the hardware diagnostics.

**Note:** Although this software release only supports a single ODSP board, the hardware diagnostics will test a three board configuration if enabled.

## 5.3. NetStatus

The NetStatus application is included with this release. It is installed separately and can be installed on the Gateway itself or a separate PC.

## 5.4. Gateway SNMP Manager

The Gateway SNMP Manager is included with this release. It is installed separately and can be installed on a Windows 95 or Windows NT 4.0 client.

## 5.5. Gateway Sound Recorder

The Gateway Sound Recorder is included with this release. It is installed separately on a Windows 95 or Windows NT 4.0 client that has a sound card and microphone, not on the Gateway itself.

# 6. Compatibility & Interoperability

## 6.1. Compatibility

### 6.1.1. Tested Systems

PictureTel has tested the 240 Gateway with the PictureTel products listed in the table below.

| Product Name | H.320 | H.323 |
|---|---|---|
| Concorde 6.30 | X | |
| Concorde 6.50 | X | |
| LiveLAN 3.1 | X | |
| PCS 100 1.6T | X | |
| PCS 50 1.6T | X | |
| PCS 200 NT 1.1 | X | |
| PCS 200 Win95 1.5.2 | X | |
| PictureTel 550 1.00.019 | X | X |
| SwiftSite 1.3 | X | |
| SwiftSite II 1.0 | X | |
| Venue 1.3.02 | X | |

### 6.1.2. Compatibility Issues

PictureTel endpoints that use NetMeeting as the data application may have intermittent problems running T.120 calls through the Gateway. The Gateway opens an MLP channel to facilitate data applications, but it is up to the endpoints to use this channel properly for T.120 dataconferencing.

### 6.1.3. Gatekeepers

The Gateway supports the PictureTel LiveManager 3.1 gatekeeper.

## 6.2. Interoperability

### 6.2.1. Tested Systems

PictureTel has tested the 240 Gateway with the non-PictureTel products listed in the table below.

| Product Name | H.320 | H.323 |
|---|---|---|
| Microsoft NetMeeting 2.0 | | X |
| Intel Proshare 4.0 | X | X |

| | | |
|---|---|---|
| Intel TeamStation 4.0a | X | X |
| Intel Business Video 500 5.1 | X | X |
| Polycom Viewstation 4.0 | X | |
| VCON Cruiser 3.01 | X | X |
| VTEL Smart Station 3.0 | X | |
| Sony Trinitron 5100 4.0 | X | |
| Zydacron Z250 2.03 | X | |

### 6.2.2. Interoperability Issues

#### 6.2.2.1. Intel TeamStation 4.0a

The Intel TeamStation may not provide TCS4/IIS information to the Gateway quickly enough to process a call. If this problem occurs, try dialing the call again using the standard tone dialer.

#### 6.2.2.2. Polycom Viewstation 4.0

2B calls from a Polycom Viewstation into a Gateway may have “blocky” video. This problem clears up as the call progresses.

#### 6.2.2.3. VCON Cruiser 3.01

The VCON Cruiser should not be used as an **H.320 device** when placing inbound calls to the Gateway, however outbound calls through the Gateway to an H.320 VCON Cruiser have proven successful.

#### 6.2.2.4. VTEL Smart Station 3.0

There are known interoperability issues with the VTEL Smart Station, however calls running at 384K are successful.

### 6.2.3. Gatekeepers

The Gateway does not support the RADVision and Cisco gatekeepers.

# 7. Customer Support

The customer support phone number for the PictureTel 240/260 is 1-800-8PICTEL (1-800-874-2835).